# 5.8GHz DeskTop Transmitter & Receiver

***It's About Real-Time***

# OWNER'S MANUAL

VideoComm Technologies
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# SAFETY NOTICES

I. THIS DEVICE COMPLIES WITH FCC RULES PART 15.249 OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITONS:

(1) This device may not cause harmful interference, and
(2) this device must accept any interference, including interference that may cause undesired operation of the device

II. In order to comply with the FCC/IC adopted RF exposure requirements, this transmission system will be installed by an authorized professional installer of VideoComm Technologies. Installation of all antennas must be performed in a manner that will provide at least 23cm clearance from the front radiating aperture, to any user or member of the public.

III. This is NOT an intrinsically safe device. Do not take into area where intrinsic safety is required. Bodily harm may result if warning is ignored.

IV. DO NOT OPERATE TRANSMITTER WITHOUT ANTENNA CONNECTED TO ANTENNA PORT. Failure to do so will result in damage to the unit and void the warranty.

V. DO NOT OPERATE THE SYSTEM WHEN the Transmitter & Receiver are closer than ten feet to each other. The devices may not work properly and permanent damage can occur.

VI. The device has been certified by the FCC for use with other products without any further certification (as per FCC section 2.1091.) Changes or modifications not expressly approved by VideoComm Technologies could void the user's authority to operate the equipment.

The term "IC:" before the radio certification number only signifies that Industry Canada specifications were met.



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# INTRODUCTION

## *Introduction*

VideoComm introduces an economical desktop solution for real-time wireless video applications that is not susceptible to interference from 2.4GHz 802.11 b/g data devices. Featuring 8 user selectable channels, the system is an ideal choice when multiple wireless video links are required for any portable, temporary or covert surveillance and monitoring application.

## *Advantages*

- Low profile desktop design. Easy to install and operate.
- 8 user selectable channels for wireless Video and Stereo Audio
- **NO** interference from 2.4GHz 802.11 b/g data devices
- Sends video from locations normally not possible, convenient or economical with cable
- High resolution, real time wireless video up to 1,000 feet line of sight
- One Year Limited Warranty
- RoHS compliant models available upon request.
- Perfect for commercial, industrial, scientific, law enforcement and government video security applications.

VideoComm Technologies
Customer Service

Bus (905)-339-0366
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E-mail- info@VideoTransmitters.com
Web Site- www.VideoTransmitters.com
Monday - Friday 8:30am- 5:30pm
Eastern Standard Time

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# PARTS LIST

The 5.8GHz Desktop wireless 8-Channel series has been carefully manufactured, tested, inspected and packaged. Please inspect the packaging carefully to ensure you have received all the necessary parts and accessories listed. Refer to the following chart to determine which parts are included with your product. If any parts are missing or damaged, contact **VideoComm Technologies,** Customer Service or your re-seller immediately.

| PARTS | TC-5808 | TX-5808 | RX-5808 |
|---|---|---|---|
| Desk Top Transmitter - # TX-5808 | One | One | - |
| Desk Top Receiver - # RX-5808 | One | - | One |
| 12VDC Power Supply - # PS-1250 | Two | One | One |
| 3dBi Gain Omni Antennas - # RUB-5803 | Two | One | One |
| BNC Male to RCA Female Adaptor | Two | One | One |
| RCA Plug | One | One | One |


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# SYSTEM SETUP

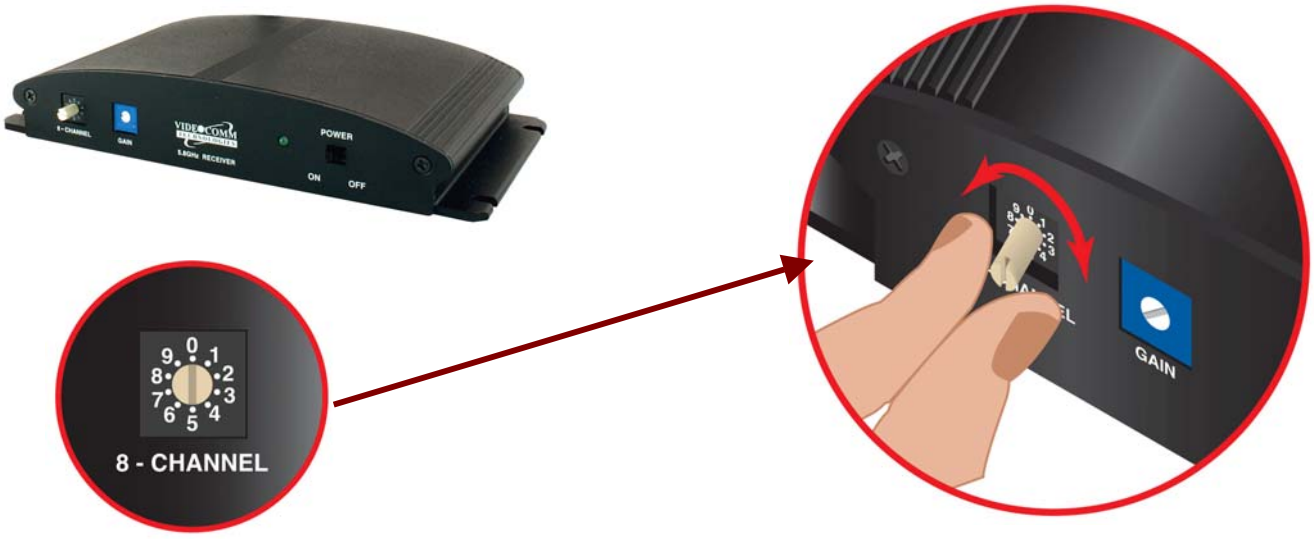
## Channel Selection

**WARNING – DO NOT OPERATE TRANSMITTER WITHOUT ANTENNA CONNECTED TO ANTENNA PORT**. Failure to do so will result in damage to the unit and will void the warranty.

Since the transmitter and receiver look similar, these instructions apply for both devices when changing channels. For the wireless link to work, both devices must have the same channel selected.

1. Attach the included rubber duck antennas to the transmitter and receiver.
2. Power-UP the Transmitter/Receiver using the included power supply & switch to "ON"
3. Set the desired channel by turning the rotary switch to channels from 1 - 8
4. Repeat these steps for the receiver. The receiver must have the same and matching channel to receive the video signal
5. We strongly recommend that you **do not adjust the video gain** adjustment without first consulting a member of the VideoComm Technologies Tech Support Team

| | | | |
|---|---|---|---|
| Channel # 1 | 5.733 GHz | Channel # 6 | 5.828 GHz |
| Channel # 2 | 5.752 GHz | Channel # 7 | 5.847 GHz |
| Channel # 3 | 5.771 GHz | Channel # 8 | 5.866 GHz |
| Channel # 4 | 5.790 GHz | Channel # 9 | 5.866 GHz |
| Channel # 5 | 5.809 GHz | Channel # 0 | 5.733 GHz |



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## ***Conducting a Bench Test***

With so many technical variables in an installation, the strongest recommendation we can make is to conduct a bench test. After verifying that all components of the system are in good working order and connected properly, we can arrive on the job site confident that all of our devices will install with the least amount of on site effort.

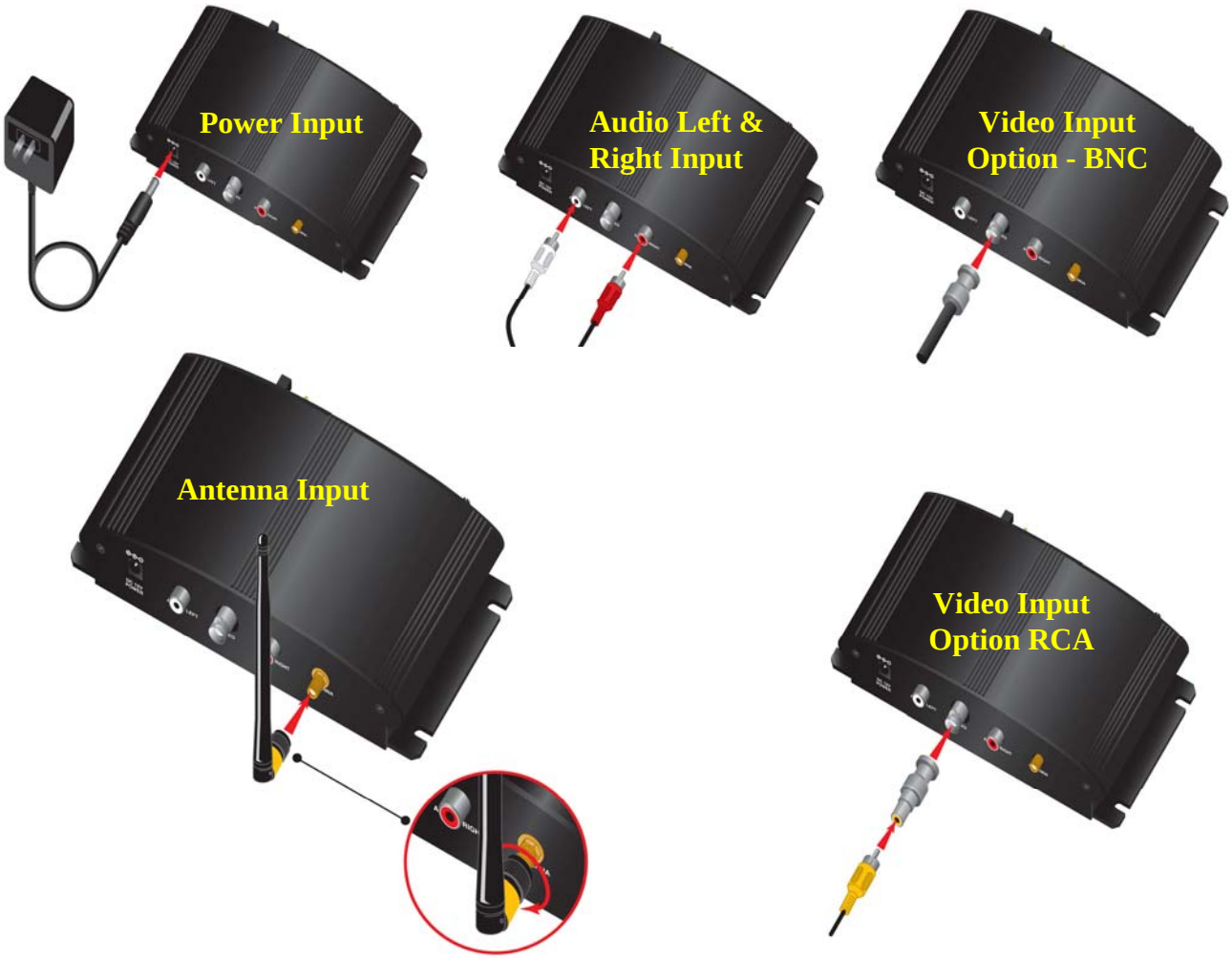
### *Basic Bench Test Procedure*

#### *1. Physical Inspection of Product*

- Compare the unit to the product photo on the attached specification sheet.
- Check for physical damage to the devices, contact your distributor or VideoComm Technologies Technical Support immediately should you suspect damage to the unit.

#### *2. Bench Testing Your 5.8GHz device*

- Attach the included rubber duck antennas to the transmitter and receiver.
- Connect power supply leads to the transmitter & receiver.
- Use a separate power supply for each device. Do not share power supplies.
- Connect the Video Output from receiver to your monitor – cables not included



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# TIPS & TROUBLE SHOOTING

**Things that block transmission**

Things that block transmission are not always obvious. Consider any obstruction that may get in the way or reduce the wireless signal strength along the way. Here are some of the most common pitfalls:

- Transmitting through walls in an office environment may be limited if the transmitting path has many desks, computers and other office type equipment in it's path. Raise the transmitter and receiver above desks and equipment to minimize obstructions.

- Steel, or anything with steel in it---steel-reinforced concrete (rebar) or metal window screens, or a tool-room cage. Aluminum siding, and energy-saving foil on the insulation in the walls are sneaky killers for radio waves. Some metallic paints or metallic wallpapers also block signals.

- Mirrors block transmission, because the "mirror" consists of a metallic backing on the glass.

- Lead windows will kill radio transmission; also windows that are UV coated may have thin metal energy-saving film.

- Other materials like brick, drywall or wood, will also cut down on the signal, depending on water content.

**Snow on the Monitor**

If there is snow or noise on your monitor, it is a good indication that the receiver is not receiving enough RF signal to process the video.

To correct an image that has a lot of noise (snow) :

- Move the transmitter and receiver closer together.
- Eliminate obstructions between the transmitter and receiver.
- Add a high gain antenna to the receiver end to increase receive sensitivity.
- Use a higher output power transmitter.



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## Interference

We strongly recommend that you always conduct a temporary setup of any wireless equipment before systems are permanently mounted. As we are sharing a radio frequency that are considered part of the public band, we do not have any entitlement to that frequency and must accept interference if it exists.

## Examples of RF Interference

- Other 5.8GHz video transmitters in your area.
- 5.8GHz wireless data network, LAN or WAN. 802.11a devices
- Proximity to some consumer products may be a source of interference. Examples include cordless phones, consumer data transceivers for wireless Internet.

## Other Examples of Interference Not Related to Wireless

- Improper line-of-sight, installation or alignment of transmitters and receivers.
- Power source ground loops.
- Incorrect voltages to devices (too high or too low), including transmitters and receivers.
- Sharing power supplies between devices.
- Power source is too close to video cable, low impedance, coax cable kinks, poor video cable terminations, improper and/or lengthy power source cabling.
- Corresponding transmitter and receiver sets are on different channels.

## Possible Solutions if Experiencing Interference

- Change the channel of your transmitter or move your wireless video devices farther away from the source of interference. Transmitters do not have to be beside the camera source and the receivers do not have to be beside the monitoring equipment.

- Before connecting the video feed into the transmitter, use a field monitor to check that you have a good video picture. Similarly for the receiver, check the video output first before connecting to the video feed into the monitor or recorder.

- Depending on the installation, use an existing building as a shield from interfering sources.

- Check power sources and video cable runs for possible ground loops problem, correct voltages, cable kinks, impedance and proper termination. Ensure proper gauge of wire/cable is used for lengthy video and power source installations.

- Whenever possible use separate regulated power supplies for separate devices.



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# SPECIFICATIONS

| | |
|---|---|
| **Operating Frequency** | 5.725GHz – 5.875GHz, 8 User Selectable Channels |
| **Radiated Power** | 50mV/m @ 3m |
| **Range (Line-of-Sight)** | Up to 1,000 feet Line-of-Sight / 300 feet indoors |
| **Transmitter Antenna Type** | 3dB Omni-Directional |
| **Receiver Antenna Type** | 3dB Omni-Directional |
| **Receiver Sensitivity** | -84 dBm |
| **Video Format** | NTSC and PAL |
| **Modulation** | FM - Frequency Modulation |
| **Video Connector** | BNC Female @ 75 Ohms 1 Volt P – P |
| **Stereo Audio Connector** | One Left-Channel & One Right-Channel<br>RCA Female @ 600 Ohms 1 Volt P – P |
| **Temperature Range** | -22 to +150 degrees Fahrenheit |
| **Operating Voltage** | 8 - 32 VDC - Polarity Protected<br>90% + efficient, low noise switching voltage regulator |
| **Current Consumption** | Transmitter: 140mA @ 12VDC<br>Receiver: 170mA @ 12VDC |
| **Dimensions** | 7.4” x 4.2” x 1.2” each enclosure |
| **Weight** | 441 g or 15.5oz each |
| **FCC / IC / CE Approved** | Yes for ALL |



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# WARRANTY INFORMATION/ TERMS & CONDITIONS

VideoComm Technologies, herein referred to as "VCT."

## LIMITED WARRANTY

VCT hereby warrants, subject to the conditions here in below, that should this product become defective by reason of improper workmanship or material defect during the specified warranty period, VCT will repair the same, effecting all necessary parts without charge for either parts or labor, or replace the unit at VCT option.
Labor: ONE (1) Year from the date of original purchase from authorized Re-seller. TWO (2) Years for Antennas only.
Parts: ONE (1) Year from the date of original purchase from authorized Re-seller. TWO (2) Years for Antennas only.

### Void Warranty

Purchaser warranty will be void and purchaser waves any rights to make warranty claim if product has been opened, altered or modified, repaired or serviced by anyone, other then the service facilities authorized by VCT to render such services. Further, the seal/serial number on the unit must not have been altered or removed. The unit must not have been subject to accident, misuse, abuse or operated contrary to the instructions provided. The opinion of VCT with respect to this matter shall be final. This warranty does not include and is not extended to broken and damaged accessories, batteries and exposed antennas and to parts wearing out due to normal wear and tear.

### Proper Delivery:

Returned products will not be accepted for warranty repair unless accompanied with a valid Return Merchandise Authorization (**RMA**) number issued by VCT. RMA numbers issued by VCT are valid for 15 days. Shipments received after 15 days will be refused. The unit must be shipped, freight prepaid or delivered to the VCT Service facility, in either its original package or similar package, affording an equal degree of protection and with instructions indicating the location within Canada or the United States to which the unit will be returned. The repaired unit will be returned to the customer freight prepaid unless the warranty claim is deemed void or invalid. All accessories included with the unit must be listed individually on the packing slip for the shipping documentation. VCT will not accept any liability, for loss or damage to such accessories if they are not listed.

### Proof of Purchase Date:

This warranty applies and commences to VCT products, from the original date of purchase from an Authorized Re-seller. Proof of purchase (i.e.: photocopy of invoice), must be included with product when submitting for warranty repair.

### Warranty Limitations:

This warranty does not cover maintenance or check-ups, if required. This warranty gives you specific legal rights and you may also have other rights, which vary from state/province to state/province. Some states/provinces do not allow the exclusion or limitation of incidental or consequential damages or limitations on how long an implied warranty lasts, therefore the above exclusions or limitations may not apply to you. VCT is not responsible or liable for indirect, special, incidental or consequential damages arising out of or in connection with, the use or performance of the product or other damages with respect to loss of property, loss of revenues or profit, or cost of removal, installation or reinstallation.

## PRODUCT RETURNS

**30 Day Product Return Policy **** If you are not satisfied with a product, you may return it to VCT within 30 days from original date of shipment within the following conditions:

- Original shipping charges are not refundable unless deemed that VCT shipped incorrect item(s), incorrect quantity (ies) or original manufacturers defective product ( subject to VCT validation ).
- Returned products will not be accepted unless accompanied with a valid Return Merchandise Authorization number (RMA).
- RMA numbers issued by VCT are valid for 15 days. Shipments received after 15 days will be refused.
- Returns must include a copy of original invoice, the completed VCT packing slip, and a detailed statement of reason for return.
- Customer is responsible for all freight charges, duties and taxes, if applicable. Product must be properly packaged and shipped, prepaid to VCT in its original packaging, or similar packaging that offers an equal degree of protection. VCT will charge the full replacement cost for any missing components or parts. VCT is not responsible for lost or damaged merchandise. We strongly recommend insuring products for return shipping.
- Return claims are void if manufacturer's seal is broken and/or products are altered or modified, subjected to an accident, improper handling, improper installation, misuse and abuse or operated contrary to the operating instructions. Products returned that are not in "re-saleable" condition will be returned to customer at their expense.
- Discontinued items, special or custom-made equipment items (items not carried as stock even though they may appear on price lists) may not be returned. Returned products will be evaluated at the original purchase price and not at any subsequent price increase or decrease.

****** Subject to the conditions stated above, the following re-stocking fees will apply to products returned for credit/refund.
VCT reserves the right to determine the validity of the product returned and / or refuse to accept product for credit.
**0 % Re-Stocking Fee** (less original shipping charges): If product is returned within 30 days from original VCT ship date.
**25% Re-Stocking Fee** (less original shipping charges): If product is returned within 60 days from original VCT ship date.
**50% Re-Stocking Fee** (less original shipping charges): If product is returned within 90 days from original VCT ship date.
100% Re-Stocking Fee **( 0% credit ) : If product is returned after 90 days from original VCT ship date.**

## DISCLAIMER

In no event will VCT or any of its affiliates be liable for any indirect, special, punitive, consequential liability, or incidental damages upon any basis of liability whatsoever even if advised of the possibility of such damages. In addition, VCT does not take any responsibility or assume any liability for the wiring, installation or placement of the equipment Customer purchases, or for the activities of any other individual or entity such as Customer's Company, those who prepare the specifications or any local Authorities who inspect or approve Customer's installation.



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